Abstract

There is prepared an optical fiber preform 2 whose core region is doped with Ge in such a quantity of dopant that the relative refractive-index difference [Ge] expressed in % with respect to pure SiO_2 satisfies the condition [Ge]≥0.3%, where upon after being heat drawn with a drawing furnace 11 into an optical fiber 3, the optical fiber 3 is annealed in a heating furnace 21 downstream of the drawing furnace 11 under a condition that the cooling speed is 2000°C/second or less, and the period of annealing time is equal to or longer than the relaxation time. Further, the annealed optical fiber 3 is introduced into a cooling means 31 at an entry temperature of 700°C or more, and the optical fiber 3 is forcibly cooled by the cooling means 31. As a consequence, there are achieved an optical fiber and a method of fabricating the same capable of fabricating the optical fiber having a reduced Rayleigh scattering loss as well as excellent hydrogen-resisting property with favorably high productivity.